

Claim Amendments

Claim 1. (withdrawn) An isolated peptide consisting of an amino acid sequence selected from the group consisting of:

- (a) an amino acid sequence shown in SEQ ID NO:2;
- (b) an amino acid sequence of an allelic variant of an amino acid sequence shown in SEQ ID NO:2, wherein said allelic variant is encoded by a nucleic acid molecule that hybridizes under stringent conditions to the opposite strand of a nucleic acid molecule shown in SEQ ID NOS:1 or 3;
- (c) an amino acid sequence of an ortholog of an amino acid sequence shown in SEQ ID NO:2, wherein said ortholog is encoded by a nucleic acid molecule that hybridizes under stringent conditions to the opposite strand of a nucleic acid molecule shown in SEQ ID NOS:1 or 3; and
- (d) a fragment of an amino acid sequence shown in SEQ ID NO:2, wherein said fragment comprises at least 10 contiguous amino acids.

Claim 2. (withdrawn) An isolated peptide comprising an amino acid sequence selected from the group consisting of:

- (a) an amino acid sequence shown in SEQ ID NO:2;
- (b) an amino acid sequence of an allelic variant of an amino acid sequence shown in SEQ ID NO:2, wherein said allelic variant is encoded by a nucleic acid molecule that hybridizes under stringent conditions to the opposite strand of a nucleic acid molecule shown in SEQ ID NOS:1 or 3;
- (c) an amino acid sequence of an ortholog of an amino acid sequence shown in SEQ ID NO:2, wherein said ortholog is encoded by a nucleic acid molecule that hybridizes under stringent conditions to the opposite strand of a nucleic acid molecule shown in SEQ ID NOS:1 or 3; and
- (d) a fragment of an amino acid sequence shown in SEQ ID NO:2, wherein said fragment comprises at least 10 contiguous amino acids.

Claim 3. (withdrawn) An isolated antibody that selectively binds to a peptide of claim 2.

Claim 4 (currently amended) An isolated nucleic acid molecule consisting of a nucleotide sequence selected from the group consisting of:

- (a) a nucleotide sequence that encodes a protein comprising the an amino acid sequence of ~~shown in~~ SEQ ID NO:2;
- ~~(b) a nucleotide sequence that encodes of an allelic variant of an amino acid sequence shown in SEQ ID NO:2, wherein said nucleotide sequence hybridizes under stringent conditions to the opposite strand of a nucleic acid molecule shown in SEQ ID NOS:1 or 3;~~
- ~~(c) a nucleotide sequence that encodes an ortholog of an amino acid sequence shown in SEQ ID NO:2, wherein said nucleotide sequence hybridizes under stringent conditions to the opposite strand of a nucleic acid molecule shown in SEQ ID NOS:1 or 3;~~
- ~~(d) a nucleotide sequence that encodes a fragment of an amino acid sequence shown in SEQ ID NO:2, wherein said fragment comprises at least 10 contiguous amino acids; and~~
- (b) a nucleic acid sequence consisting of the nucleic acid sequence of SEQ ID No: 1;
- (c) a nucleic acid sequence consisting of the nucleic acid sequence of SEQ ID No: 3; and
- (d) (e) a nucleotide sequence that is ~~the complement of~~ completely complementary to a nucleotide sequence of (a)-(d c).

Claim 5 (canceled)

Claim 6. (withdrawn) A gene chip comprising a nucleic acid molecule of claim 5.

Claim 7. (withdrawn) A transgenic non-human animal comprising a nucleic acid molecule of claim 5.

Claim 8 (original) A nucleic acid vector comprising a nucleic acid molecule of claim 5.

Claim 9 (currently amended) A nucleic acid vector comprising a nucleic acid molecule of claim 5 4.

Claims 10-11 (canceled)

Claim 12 (withdrawn) A method for detecting the presence of any of the peptides of claim 2 in a sample, said method comprising contacting said sample with a detection agent that specifically allows detection of the presence of the peptide in the sample and then detecting the presence of the peptide.

Claim 13 (currently amended) A method for detecting the presence of a nucleic acid molecule of claim 5 4 in a sample, said method comprising
contacting the sample with an oligonucleotide comprising at least 20 contiguous nucleotides that hybridizes to said nucleic acid molecule under stringent conditions, wherein the stringent condition is hybridization in 6X sodium chloride/sodium citrate (SSC) at about 45°C, followed by one or more washes in 0.2 X SSC, 0.1% SDS at 50-65°C, and
determining whether the oligonucleotide binds to said nucleic acid molecule in the sample.

Claim 14. (withdrawn) A method for identifying a modulator of a peptide of claim 2, said method comprising contacting said peptide with an agent and determining if said agent has modulated the function or activity of said peptide.

Claim 15. (withdrawn) The method of claim 14, wherein said agent is administered to a host cell comprising an expression vector that expresses said peptide.

Claim 16. (withdrawn) A method for identifying an agent that binds to any of the peptides of claim 2, said method comprising contacting the peptide with an agent and assaying the contacted mixture to determine whether a complex is formed with the agent bound to the peptide.

Claim 17. (withdrawn) A pharmaceutical composition comprising an agent identified by the method of claim 16 and a pharmaceutically acceptable carrier therefor.

Claim 18. (withdrawn) A method for treating a disease or condition mediated by a human transporter protein, said method comprising administering to a patient a pharmaceutically effective amount of an agent identified by the method of claim 16.

Claim 19. (withdrawn) A method for identifying a modulator of the expression of a peptide of claim 2, said method comprising contacting a cell expressing said peptide with an agent, and determining if said agent has modulated the expression of said peptide.

Claim 20. (withdrawn) An isolated human transporter peptide having an amino acid sequence that shares at least 70% homology with an amino acid sequence shown in SEQ ID NO:2.

Claim 21. (withdrawn) A peptide according to claim 20 that shares at least 90 percent homology with an amino acid sequence shown in SEQ ID NO:2.

Claim 22-23 (canceled)

Claim 24 (new). A process for producing a polypeptide comprising culturing the host cell of claim 9 under conditions sufficient for the production of said polypeptide, and recovering the peptide from the host cell culture.

Claim 25 (new) An isolated polynucleotide consisting of a nucleotide sequence set forth in SEQ ID NO:1.

Claim 26 (new) An isolated polynucleotide consisting of a nucleotide sequence set forth in SEQ ID NO:3.

Claim 27 (new) A vector according to claim 8, wherein said vector is selected from the group consisting of a plasmid, virus, and bacteriophage.

Claim 28 (new) A vector according to claim 8, wherein said isolated nucleic acid molecule is inserted into said vector in proper orientation and correct reading frame such that the protein of SEQ ID NO: 2 may be expressed by a cell transformed with said vector.

Claim 29 (new) A vector according to claim 28, wherein said isolated nucleic acid molecule is operatively linked to a promoter sequence